Upcoming Webinar

Green chemistry education: Catalyzing sustainable innovation

Thursday, May 15 at 3 pm.

Register at:
https://wadismeetings.webex.com/wadismeetings/j.php?MTID=m6022037ce261764a44f0a429f11af6c9

Dr. Julie Haack

Coordinator Green Product Design Network

Assistant Department Head and Senior Instructor II

Department of Chemistry and Biochemistry
University of Oregon

Dr. James E. Hutchison

Lokey-Harrington Chair in Chemistry

Associate Editor, Environmental Science: Nano

Co-Chair, 2014 Green Chemistry and Engineering Conference,

Department of Chemistry and Biochemistry
University of Oregon

Green chemistry, the design of chemical products and processes to eliminate hazards to human health and the environment, provides unique opportunities for innovation in academia and industry. Chemistry educators realize that sustainable chemical innovation is complex and requires a broad and sophisticated mix of approaches and educational strategies. In order to meet the growing needs of society, current approaches to chemical design and processing must be transformed and education has the potential to significantly accelerate this transformation.

Over the past 20 years there have been considerable advances toward infusing green chemistry into undergraduate and graduate curricula with the goal of preparing future generations of chemists to practice greener chemistry. New generations of educational materials have been developed, textbooks have been (re) written, hundreds of colleges and universities have introduced green chemistry into their curricula, and tens of thousands of students are learning about the principles and practice of green chemistry.

As these changes have been introduced, we've also learned more about the challenges that green chemists will face in the future. They will need to work in a widely interdisciplinary setting on complex chemical design challenges in the context of a global economy. They will need new skills and tools to implement the core principles of green chemistry.

In this presentation we will describe the value of green chemistry to society and within education, provide an overview of the diverse collection of materials available to assist educators in infusing green chemistry principles within higher education, and offer targeted strategies for introducing green chemistry across the curriculum.

Biographies

Dr. Julie Haack currently serves as the Coordinator for the University of Oregon's Green Product Design Network connecting design and innovation to the science of sustainability. Her recent work focuses on designing courses that combine green chemistry and life cycle thinking with product design, architecture, and journalism to drive innovation in the different disciplines. Haack also holds the position of Assistant Department Head, and senior instructor in the Department of Chemistry.

Dr. Haack is actively involved in the identification, development and dissemination of educational materials in the area of green chemistry and designing tools and workshops that facilitate the development of a green chemistry education community. Part of this work includes the creation of GEMs - a living database of educational materials to facilitate the identification, development and dissemination of laboratory exercises, lecture materials, course syllabi and multimedia content that illustrate chemical concepts important for green chemistry. Haack began her career in science at the University of Oregon, graduating with a B.S. in chemistry in 1986. She received her Ph.D. in biology at the University of Utah, followed by a postdoctoral research position in pharmacology at the University of North Carolina at Chapel Hill. She has been a faculty member at Oregon since 2000.

Dr. James E. "Jim" Hutchison earned his B.S. in chemistry from the University of Oregon and his Ph.D. in organic chemistry from Stanford University. He conducted postdoctoral research at the University of North Carolina. He joined the faculty at the University of Oregon (UO) in 1994 where he is currently the Lokey-Harrington Chair in Chemistry. His research interests are in green chemistry, materials chemistry and nanoscience. He led the development of the UO's curriculum in green organic chemistry, launched the university's pioneering efforts in Greener Nanoscience and is a member of the Governing Board of the ACS Green Chemistry Institute. He is a founding Associate Editor of the journal Environmental Science: Nano and has served on four National Research Council Committees related to green chemistry, nanoscience and sustainability. He has won a number of awards, including the Alfred P. Sloan Research Fellowship and an NSF-CAREER award. He is the author of more than 110 refereed publications and a textbook ("Green Organic Chemistry: Strategies, Tools and Laboratory Experiments").

Contact Information

Julie A. Haack
1253 University of Oregon
Eugene, Oregon 97403

Email: jhaack@uoregon.edu Phone: (541) 346-4604

James E. Hutchison
1253 University of Oregon
Eugene, Oregon 97403

Email: hutch@uoregon.edu Phone: (541) 346-4228